Guidance Memorandum

DATE: APRIL 15, 2002

TO: Compliance Inspectors

FROM: Lamar Bradley

RE: When Inventory Control and Tank Tightness Testing can be used on upgraded tank systems

Questions have arisen concerning the requirements to implement monthly monitoring following upgrading of UST systems. This memo will attempt to clarify these concerns.

Our rules allow for UST systems to use Inventory Control and Tank Tightness Testing (IC/TTT) as a release detection method for 10 years *after installation or upgrade of the tank whichever is later*. EPA's guidance on partially upgraded systems states the 10-year period for using IC/TTT begins when corrosion protection is added to the tank. (In this guidance, internally lining a tank was considered "corrosion protection")

For example, if a bare steel tank had an impressed current CP system added (or lined) in January 1995, but didn't have spill prevention and overfill protection added until December 1998, we would consider the 10-year window for IC/TTT closed in January 2005, not December 2008.

However, when we created the Tennessee Alternative Procedure (TAP) within the "other methods" provision of 1200-1-15-.02(2)(b)2(iv), many tank owners chose to use that method of tank assessment prior to adding CP. A key provision of the TAP was that the owner **must** implement a form of monthly monitoring within 30 days of adding CP. So the Division closed the 10-year window for IC/TTT for any tanks which were assessed with the TAP.

Other methods of tank assessment were also being marketed in the mid-1990s under the provisions of ASTM-ES40 Alternative Assessment Procedures. Some of the trade names were "Mean Time to Corrosion Failure", "Statistical Corrosion Probability Analysis", "Tank Environmental Profile", "Cathodic Protection Suitability Study", and "Tank Suitability Study". All of these methods involved field data collection and analysis to determine the statistical probability of tank shell perforation given the tank age and environmental conditions. Acceptance of these methods was entirely at the discretion of the implementing agency, since they too fell under the "other methods" provision. We accepted these methods with the condition that any tanks assessed with these methods would also implement a form of monthly monitoring within 30 days of adding CP. So the Division closed the 10-year window for IC/TTT for any tanks which were assessed with any of the Alternative Assessment methods.

There are only 3 categories of tanks which can now be using IC/TTT for release detection:

1. **Tanks that meet new tank standards and have been installed for less than 10 years.**

   Newly installed tanks may use IC and periodic TTT for 10 years after installation if they so choose. After 10 years they must implement monthly monitoring.

2. **Tanks not meeting new tank standards (regardless of age) which were assessed <u>with a manned entry internal inspection</u> before adding CP.**

   These tanks may use IC and periodic TTT for 10 years after adding CP. Ten years after adding CP they must implement monthly monitoring.

3. **Substandard tanks, which had CP installed before they were 10 years old and either had conducted monthly monitoring or were assessed using pre- and post-CP tank tightness testing.**

   This addresses tanks that were in violation of new tank standards. Tanks in this category would have been installed ***<u>after</u>*** 12/22/88, but had CP added ***<u>before</u>*** 12/22/98. If a tank owner were using a method of monthly monitoring before upgrading it is unlikely that they would want to revert to IC/TTT for the next 10 years, but it is allowed under our current rules. If tanks in this category were assessed using pre- and post CP tank tightness tests then they can use IC/TTT for 10 years after adding CP. Ten years after adding CP, these tanks must implement monthly monitoring.

The windows on these last two categories will close December 22, 2008*. After that date, only tanks in category 1 will be allowed to use IC/TTT for release detection.

If you encounter upgraded tank systems and the tank owner is using IC/TTT, and the tank does not fit into one of the three categories above, it is in violation of our rules. The tank owner must immediately implement a form of monthly monitoring.

If a tank owner <u>failed to assess the tank</u> prior to adding CP, he is in violation for failure to assess the tank prior to upgrading. He must implement a form of monthly monitoring. Contact the Enforcement Section if you need further guidance on the violation.

Please call me if you have any questions about this memo, or concerns you wish to discuss on this subject.

*If a tank was placed TOS in 1998 and then upgraded by 12/22/99, that tank could use IC/TTT until 12/22/09.

<u>Footnote:</u> ***Manual Tank Gauging*** may be performed indefinitely on tanks which are 1,000 gallons and less nominal capacity which meet the tank dimension and test duration requirements in our rules. Manual Tank Gauging <u>whenever used in combination with tightness testing</u> may only be used for 10 years.

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